AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of calibrating a crossconnect including a MEMS device and another optical device, each of which further include a plurality of elements, said method comprising:

(a) determining a relationship between an applied voltage and an angle response for a number of the elements of the MEMS device;

(b) determining a function of beam position and element position for the number of the elements of the MEMS device;

(c) assembling the MEMS device and the another optical device to produce the crossconnect;

(d) applying voltages to make sample connections between the MEMS device and the another optical device based on the relationship and the function;

(e) determining a transformation for the sample connections caused by packaging the crossconnect; and

~~(e)~~(f) redetermining the relationship and the function based on the transformation.

2. (Original) The method of calibrating a crossconnect of claim 1, wherein said step of determining a relationship between the applied voltage and the angle response includes a combination of measuring values and estimating values.

3. (Original) The method of calibrating a crossconnect of claim 2, wherein the estimated values are estimated using one of mathematical function fitting and interpolation.

4. (Currently Amended) The method of calibrating a crossconnect of claim 1, ~~wherein said step of~~further comprising:

determining the destination of ~~the~~ a beam signal as a function of mirror position ~~is done~~ by performing raytracing.

5. (Original) The method of calibrating a crossconnect of claim 1, wherein the sample connections are made for corner elements.

6. (Original) The method of calibrating a crossconnect of claim 1, wherein the transformation includes at least one of an x and y offset, a rotation offset, and a magnification.

7. (Original) The method of calibrating a crossconnect of claim 1, wherein at least one of the MEMS device and the another optical device are one of gimbaled mirror arrangements, non-moving elements, and optical fibers.

8. (Original) The method of calibrating a crossconnect of claim 1, further comprising iterating steps (a)-(f).

9. (Currently Amended) A method of preparing a MEMS device and another optical device for calibration as a crossconnect, the MEMS device and the another optical device each including a plurality of elements, said method comprising:

(a) determining a relationship between an applied voltage and an angle response for a number of the elements of the MEMS device; and

(b) determining a function of beam position and element position for the number of the elements of the MEMS device, wherein said step of determining a relationship between the applied voltage and the angle response includes a combination of measuring values and estimating values.

10. (Cancelled)

11. (Currently Amended) The method of calibrating a crossconnect of claim 9, wherein the estimated values are estimated using one of mathematical function fitting and interpolation.

12. (Currently Amended) The method of calibrating a crossconnect of claim 9, ~~wherein said step of~~ further comprising:

determining the destination of ~~the~~ a beam signal as a function of mirror position ~~is done~~ by performing raytracing.

13. (Currently Amended) The method of calibrating a crossconnect of claim 9, further comprising:

determining a transformation for sample connections between the MEMS device and another optical device caused by packaging the crossconnect, wherein the transformation includes at least one of an x and y offset, a rotation offset, and a magnification.

14. (Original) The method of calibrating a crossconnect of claim 9, wherein at least one of the MEMS device and the another optical device are one of gimbaled mirror arrangements, non-moving elements, and optical fibers.

15. (Original) A crossconnect including a MEMS device and another optical device calibrated by the method of claim 1.

16. (Original) A method of calibrating a crossconnect including a MEMS device and another optical device, each of which further including a plurality of elements, said method comprising:

(a) applying voltages to make sample connections between the MEMS device and the another optical device based on a relationship between an applied voltage and an angle response for a number of the elements of the MEMS device and a function of beam position and element position for the number of the elements of the MEMS device;

(b) determining a transformation for the sample connections caused by packaging the crossconnect; and

(c) redetermining the relationship and the function based on the transformation.

17. (Original) The method of calibrating a crossconnect of claim 16, wherein the relationship between the applied voltage and the angle response includes a combination of measuring values and estimating values.

18. (Original) The method of calibrating a crossconnect of claim 17, wherein the estimated values are estimated using one of mathematical function fitting and interpolation.

19. (Original) The method of calibrating a crossconnect of claim 16, wherein the function of beam position and element position for the number of the elements of mirror position is obtained by raytracing.

20. (Original) The method of calibrating a crossconnect of claim 16, wherein the transformation includes at least one of an x and y offset, a rotation offset, and a magnification.

21. (Original) The method of calibrating a crossconnect of claim 16, wherein at least one of the MEMS device and the another optical device are one of gimbaled mirror arrangements, non-moving elements, and optical fibers.

22. (Original) The method of calibrating a crossconnect of claim 16, further comprising iterating steps (a)-(c).